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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,285	12/22/2005	Johannes Joseph Schleipen	NL 030750	5725
24737	7590	12/23/2008		
PHILIPS INTELLECTUAL PROPERTY & STANDARDS				
P.O. BOX 3001				
BRIARCLIFF MANOR, NY 10510				
EXAMINER				
PATANKAR, ANEETA V				
ART UNIT		PAPER NUMBER		
2627				
MAIL DATE		DELIVERY MODE		
12/23/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/562,285

Applicant(s)

SCHLEIPEN ET AL.

Examiner

Aneeta Patankar

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,285,692 to *Okayasu* in view of U.S. Patent No. 6,574,257 to *Thronton et al.* in further view of U.S. Patent Pub. No. 2004/0052185 A1 to *Lehr et al.*

As to **claims 1, 7 and 13**, *Okayasu* discloses a method of controlling a diode laser device which is operable to receive a control signal and to output an optical signal when the control signal exceeds a threshold value, the method comprising acts of: a controller operable to receive a controls signal from the controller (12) (Fig. 1, columns 3-4, lines 66-2), supplying a control signal to the diode laser device at a predetermined turn-on time (Fig. 1, columns 3-4, lines 59-5), where Fig. 1 shows a controller for controlling the predetermined turn-on time, and supplying to the diode laser device a control signal, at a predefined time before the predetermined turn-on time (Fig. 1, columns 3-4, lines 59-5), where the predefined time is the time determined by the controller in Fig. 1.

Okayasu is deficient in disclosing a method of controlling a diode laser device which is operable to receive a control signal and to output an optical signal when the control signal exceeds a threshold value, the method comprising acts of: supplying a

bias signal having a value which exceeds the threshold value and supplying to the diode laser device, the predefined time, magnitude, and time period of the pre-bias signal are selected to tune an output power profile of the output optical signal to a desired profile.

However, *Thronton* discloses a method of controlling a diode laser device which is operable to receive a control signal and to output an optical signal when the control signal exceeds a threshold value, the method comprising: supplying a bias signal to the diode laser device, wherein the bias signal has a value which exceeds the threshold value. (Fig. 3, column 11, lines 5-7).

Thronton is deficient in disclosing the predefined time, magnitude, and time period of the pre-bias signal are selected to tune an output power profile of the output optical signal to a desired profile.

However, *Lehr* discloses the predefined time, magnitude, and time period of the pre-bias signal are selected to tune an output power profile of the output optical signal to a desired profile (Fig. 3, paragraph 0025), where the predetermine time periods is t , and the magnitude of the pre-bias signal is laser light intensity LLI .

At the time of invention, it would have been obvious to a person of ordinary skilled in the art to have modified a method of controlling a diode laser device as taught by *Okayasu* by including supplying a bias signal to the diode laser device, wherein the bias signal has a value which exceeds the threshold value as taught by *Thronton*. The suggestion/motivation would have been that the laser diode to have a current about the threshold value in order to operate (*Thronton*, Fig. 3, column 11, lines 5-7). In addition, it would have been obvious to a person of ordinary skilled in the art to have modified the

method of controlling a diode laser device as taught by *Okayasu* and *Thronton* by including the predefined time, magnitude, and time period of the pre-bias signal selected to tune an output power profile as taught by *Lehr*. The suggestion/motivation would have been in order to change the light intensity level depending on whether writing, reading or erasing needs to be performed on the disc (*Lehr*, paragraph 0025).

As to **claims 2, 8 and 14**, *Okayasu* and *Thronton* are deficient in disclosing the method and controller operable to supply a pre-bias signal wherein the pre-bias signal comprises a series of pre-bias pulses, having respective predefined times, magnitudes and extents, which are selected to tune the output optical signal to have a desired power profile .

However, *Lehr* discloses the method and controller (3) operable to supply a pre-bias signal wherein the pre-bias signal comprises a series of pre-bias pulses, having respective predefined times, magnitudes and extents, which are selected to tune the output optical signal to have a desired power profile (Fig. 3, paragraph 0025), where the predetermine time periods is t , and the magnitude of the pre-bias signal is laser light intensity LLI . In addition, the same motivation is used as the rejection in claim 1.

As to **claims 3 and 9**, *Okayasu* and *Thronton* are deficient in disclosing the method wherein the pre- bias signal is a stepped value.

However, *Lehr* discloses the method wherein the pre-bias signal is a stepped value (Fig. 3, paragraph 0025), where it is shown in Fig. 3 that the LLI signal with respect to time is stepped. In addition, the same motivation is used as the rejection in claim 1.

As to **claims 4 and 10**, *Okayasu* and *Thronton* are deficient in disclosing a method wherein the predetermined turn-on time is defined by a clock signal

However, *Lehr* discloses a method wherein the predetermined turn-on time is defined by a clock signal (Fig. 2, paragraph 0037, lines 8-13), where microprocessor (3) sends the clock signal. In addition, the same motivation is used as the rejection in claim 1.

As to **claims 5 and 11**, *Okayasu* is deficient in disclosing the method wherein the predetermined turn-on time is determined by a required output power profile of the output optical signal.

However, *Thronton* discloses the method wherein the predetermined turn-on time is determined by a required output power profile of the output optical signal (Column 2, lines 30-55). *Thronton* describes that the resulting changes in laser threshold and output power can limit data rates due to turn-on delays, therefore the turn-on time is dependent on the output power profile. In addition, the same motivation is used as the rejection for claim 1.

As to **claims 6 and 12**, *Okayasu* and *Thronton* are deficient in disclosing the method, wherein the predefined time, magnitude, and time period of the pre-bias signal are selected for tuning a position the output optical signal to coincide with a channel bit block of an optical recording system.

However, *Lehr* discloses the method, wherein the predefined time, magnitude, and time period of the pre-bias signal are selected for tuning a position the output optical signal to coincide with a channel bit block of an optical recording system (Fig. 3,

paragraph 0025), where the predetermine time periods is t , and the magnitude of the pre-bias signal is laser light intensity LLI. In addition, the same motivation is used as the rejection in claim 1.

As to **claim 15**, *Okayasu* and *Thronton* are deficient in disclosing the optical system, wherein the controller is operable to supply a multi-valued pre-bias signal to the laser diode device.

However, *Lehr* discloses the optical system, wherein the controller is operable to supply a multi-valued pre-bias signal to the laser diode device (Fig. 3, paragraph 0025), where controller (3) is able to supply multiple values of laser diode current (ILD). In addition, the same motivation is used as the rejection in claim 1.

As to **claim 16**, *Okayasu* discloses the optical system wherein the controller is operable to output to the laser diode device as the control signal and before the predetermined turn-on time (Fig. 1, columns 3-4, lines 59-5), a pre-bias signal, which has a value less than a threshold value, and is defined by a clock signal of the system (Fig. 1, columns 3-4, lines 66-5), where controller (12) controls the clock signal. In addition, the same motivation is used as the rejection in claim 1.

As to **claims 17 and 18**, *Okayasu* discloses an optical system wherein the controller is operable to output to the laser diode device as the control signal and before the predetermined turn-on time (Fig. 1, columns 3-4, lines 59-5).

Okayasu is deficient in disclosing an optical system wherein a pre-bias signal which has a value less than the threshold value, wherein the controller is operable to determine the predetermined turn-on time by a required output power profile of the

output optical signal.

However, *Thronton* discloses an optical system wherein the controller is operable to determine the predetermined turn-on time by a required output power profile of the output optical signal (Fig. 4, columns 10-11, lines 35-9) and a value less than the threshold value (Column 2, lines 38-44), where the laser can go either above or below the threshold value. In addition, the same motivation is used as the rejection in claim 1.

As to **claims 19 and 20**, *Okayasu* and *Thronton* are deficient in disclosing the method, comprising an act of selecting values of the predefined time, magnitude, and time period of the pre-bias signal for tuning the output power profile of the output optical signal.

However, *Lehr* discloses the method, comprising an act of selecting values of the predefined time, magnitude, and time period of the pre-bias signal for tuning the output power profile of the output optical signal (Fig. 3, paragraph 0025), where the predetermine time periods is t , and the magnitude of the pre-bias signal is laser light intensity LLI . In addition, the same motivation is used as the rejection in claim 1.

Response to Arguments

3. Applicant's arguments, see page 11, lines 5-15, filed 10/27/08, with respect to the rejection(s) of claim(s) 1, 7 and 13 under U.S. Patent No. 6,285,692 to *Okayasu* in view of U.S. Patent No. 6,574,257 to *Thronton et al.* in further view of U.S. Patent No. 4,019,048 to *Maione et al.* have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of U.S. Patent No. 6,285,692 to *Okayasu* in view

of U.S. Patent No. 6,574,257 to *Thronton et al.* in further view of U.S. Patent Pub. No. 2004/0052185 A1 to *Lehr et al.*

Applicant argues, with respect to claims 1, 7, and 13, on page 11, lines 5-15, that *Okayasu*, *Thronton* and *Maione* fail to teach "the predefined time, magnitude, and the time period of the pre-bias signal have values that are selected to tune an output power profile of the output optical signal to a desired profile".

Examiner agrees that *Okayasu*, *Thomton*, and *Maione* all fail to teach this limitation. However, *Lehr* discloses "the predefined time, magnitude, and the time period of the pre-bias signal have values that are selected to tune an output power profile of the output optical signal to a desired profile" (Fig. 3, paragraph 0025), where the predetermine time periods is t , and the magnitude of the pre-bias signal is laser light intensity LLI.

Applicant also argues that *Okayasu*, *Thronton* and *Maione* fail to teach "a pre-bias signal in which the predefined time, magnitude, and time period of the pre-bias signal determined a required output power profile of the output optical signal".

Examiner agrees that *Okayasu*, *Thronton* and *Maione* all fail to teach this limitation. However, *Lehr* discloses "a pre-bias signal in which the predefined time, magnitude, and time period of the pre-bias signal determined a required output power profile of the output optical signal" (Fig. 3, paragraph 0025), where the predetermine time periods is t , and the magnitude of the pre-bias signal is laser light intensity LLI.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aneeta Patankar whose telephone number is (571) 272-9773. The examiner can normally be reached on Monday-Thursday 8-5, Second Friday, 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jorge L Ortiz-Criado/
Primary Examiner, Art Unit 2627

/A.P./

12/19/08